



Sanford C. Bernstein & Co. Strategic Decisions Conference

W.J. Sanders III

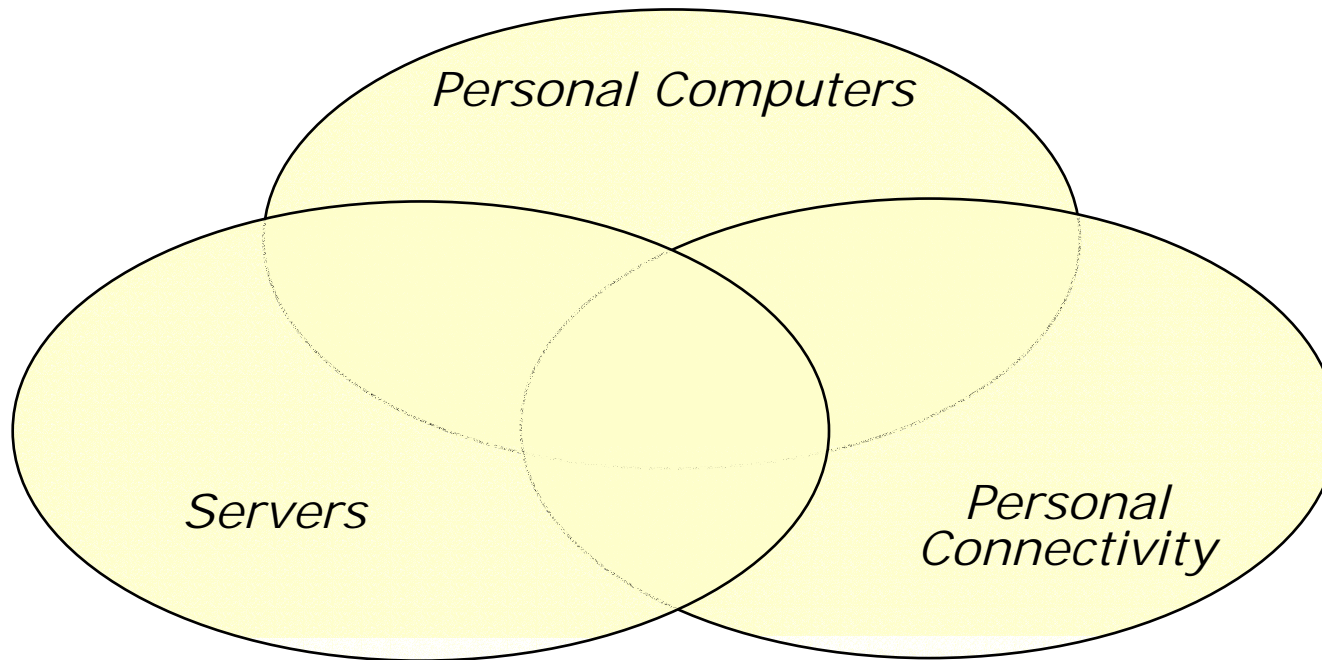
AMD Founder and Chairman of the Board

June 4, 2002

- *AMD Purpose:*
 - Empowering People Everywhere to Lead More Productive Lives
(Productivity + Connectivity = Hyper-Productivity)
- *AMD Overarching Objective:*
 - #1 in Everything We Do (Focus)
 - Flash
 - Microprocessors for Computing and Media and Information Access
- *AMD Overarching Strategy:*
 - Relentlessly Find Ways to Help Customers Work Smarter
(Customers Success is Our Success)

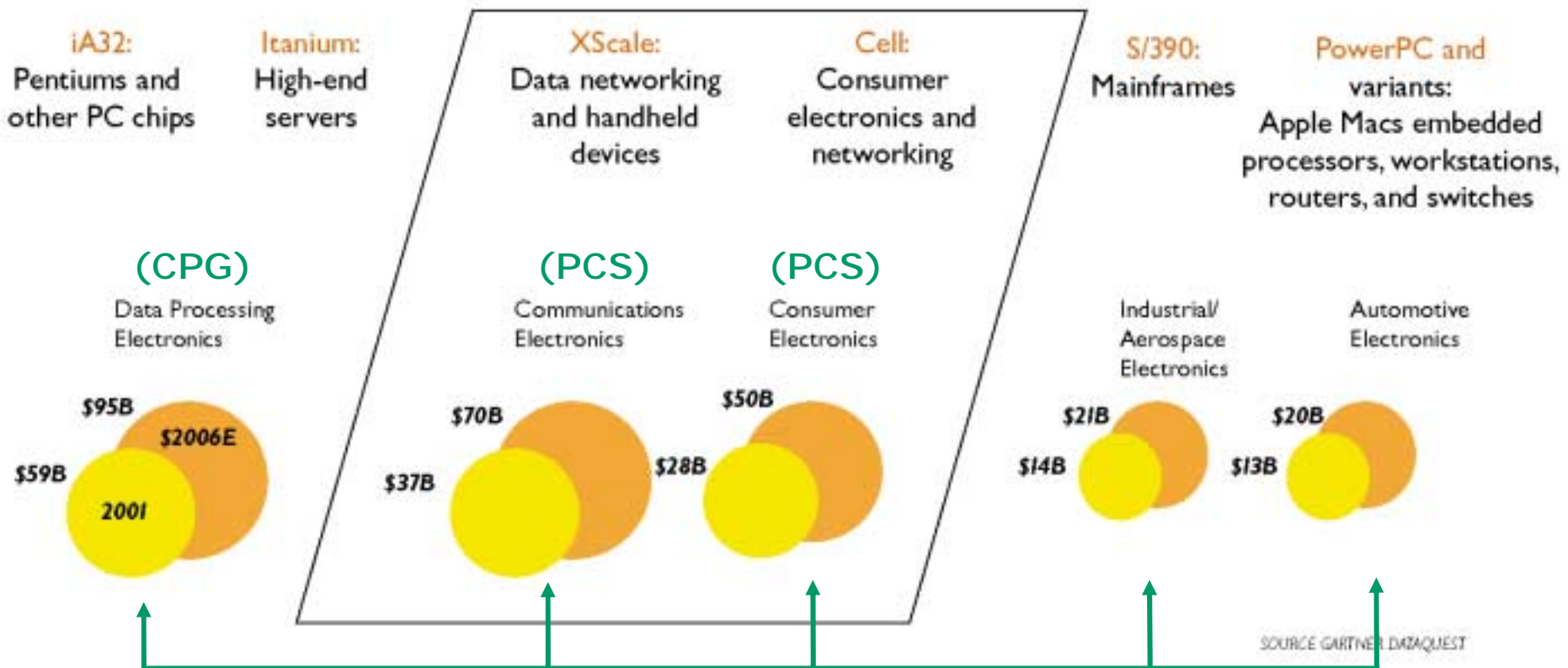
Three Track Strategy

- ✓ Focused on the largest and fastest growing Semiconductor Markets
- ✓ Profitable growth from valuable solutions to our customers
- ✓ Low Cost Producer of Silicon Solutions



Key Microprocessor Families

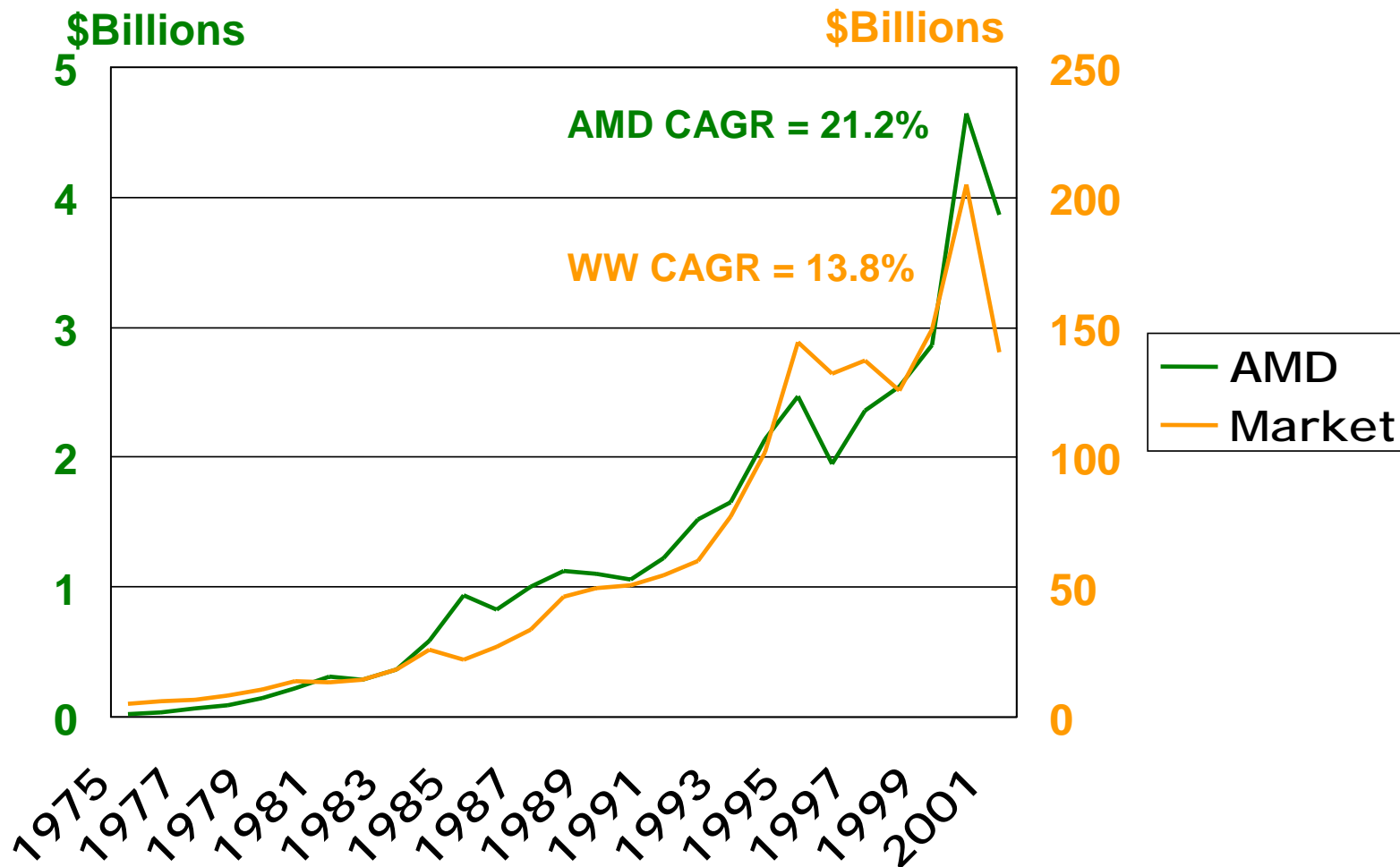
(World Wide Semiconductor Sales by Market Segments)



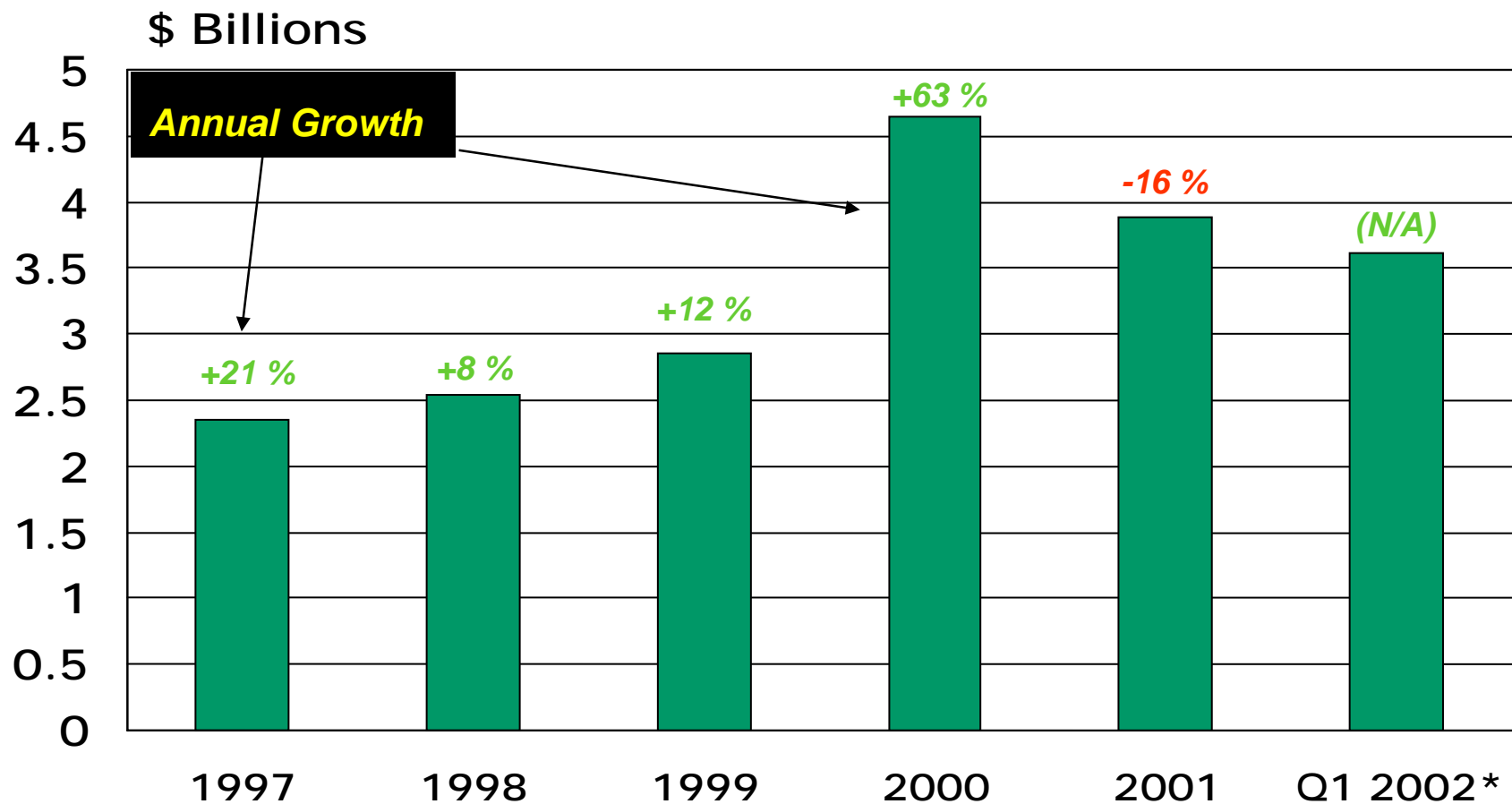
SOURCE: GARTNER, DATAQUEST

M.G.: Flash is Ubiquitous !!!

AMD Sales v. Worldwide Semiconductor Sales 1975-2001



AMD Revenues (1997 – Q1 2002)



* Annualized

**Semiconductor
Market Growth**

+4 %

-8 %

+19 %

+37 %

-32 %

(N/A)

AMD Market share

1.7 %

2.0 %

1.9 %

2.3 %

2.8 %

(N/A)

Top 25 Semiconductor Manufacturers

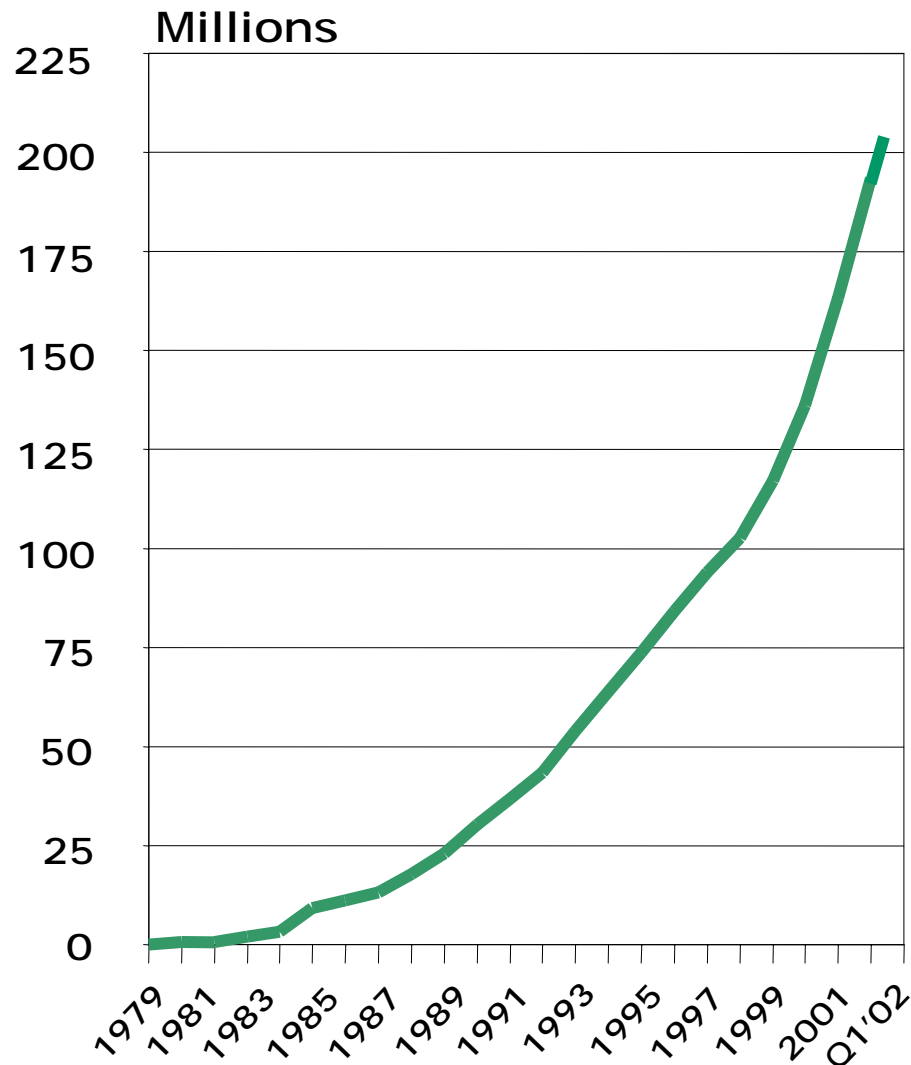
Worldwide Shipments (\$Billions)



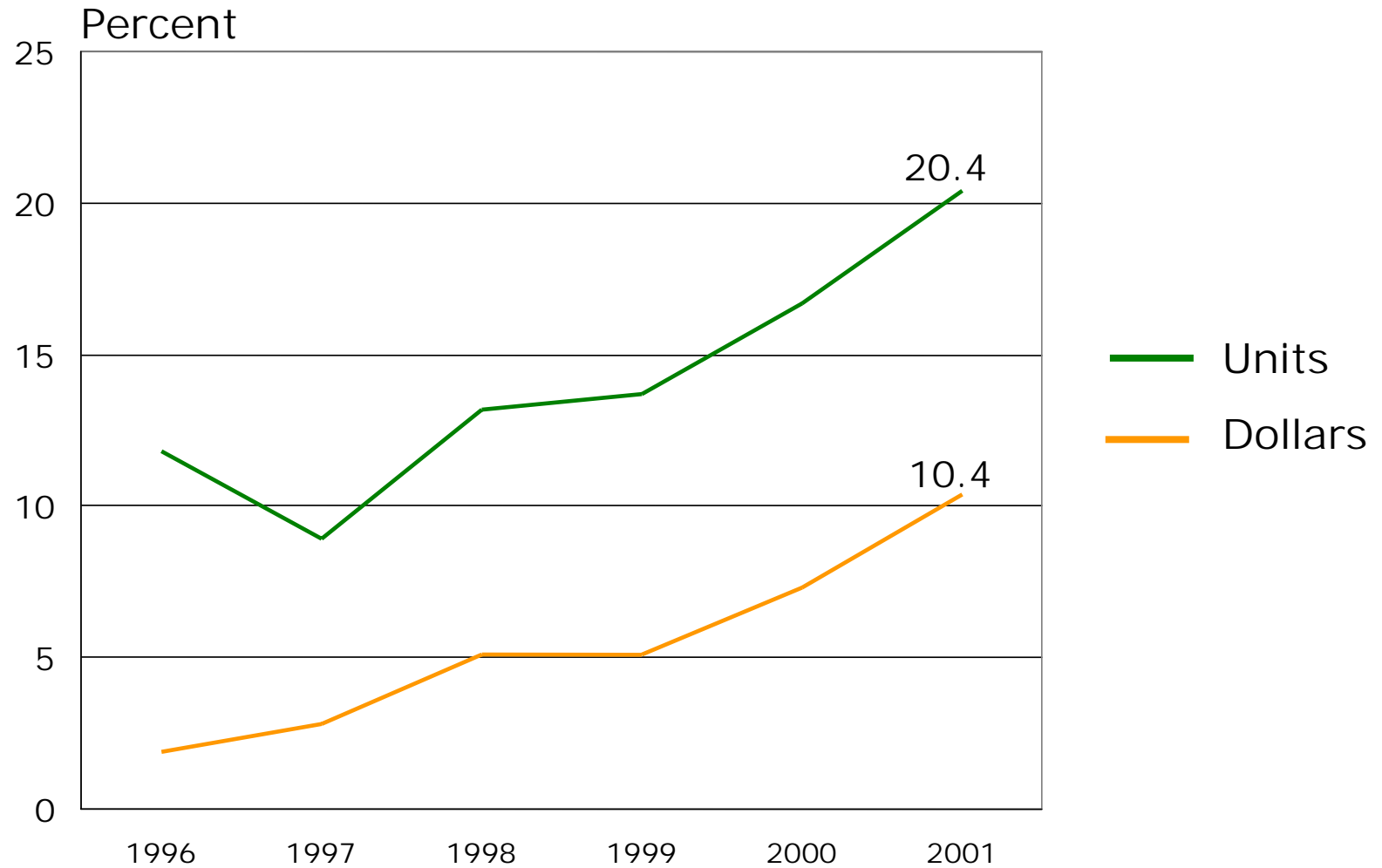
2001 Rank	Company	2001 Revenue	2001 Rank	Company	2001 Revenue
1	Intel	24.9	6	NEC	5.3
2	Toshiba	6.8	7	Hitachi	5.0
3	STMicroelectronics	6.4	8	Motorola	4.8
4	Texas Instruments	6.1	9	Infineon Technologies	4.5
5	Samsung	5.8	10	Phillips Semiconductor	4.2
<hr/>					
11	IBM	3.9	16	Agere Systems	3.0
12	AMD	3.9	17	Sanyo	2.7
13	Mitsubishi	3.5	18	Hynix	2.5
14	Matsushita	3.2	19	Micron	2.4
15	Fujitsu	3.1	20	Sony	2.1
			21	Analog Devices	1.9
			22	Sharp	1.9
			23	Agilent Technologies	1.7
			24	National Semiconductor	1.6
			25	LSI Logic	1.6

Source: In-Stat/MDR

AMD Cumulative PC Processor Unit Sales



AMD Worldwide Market Share



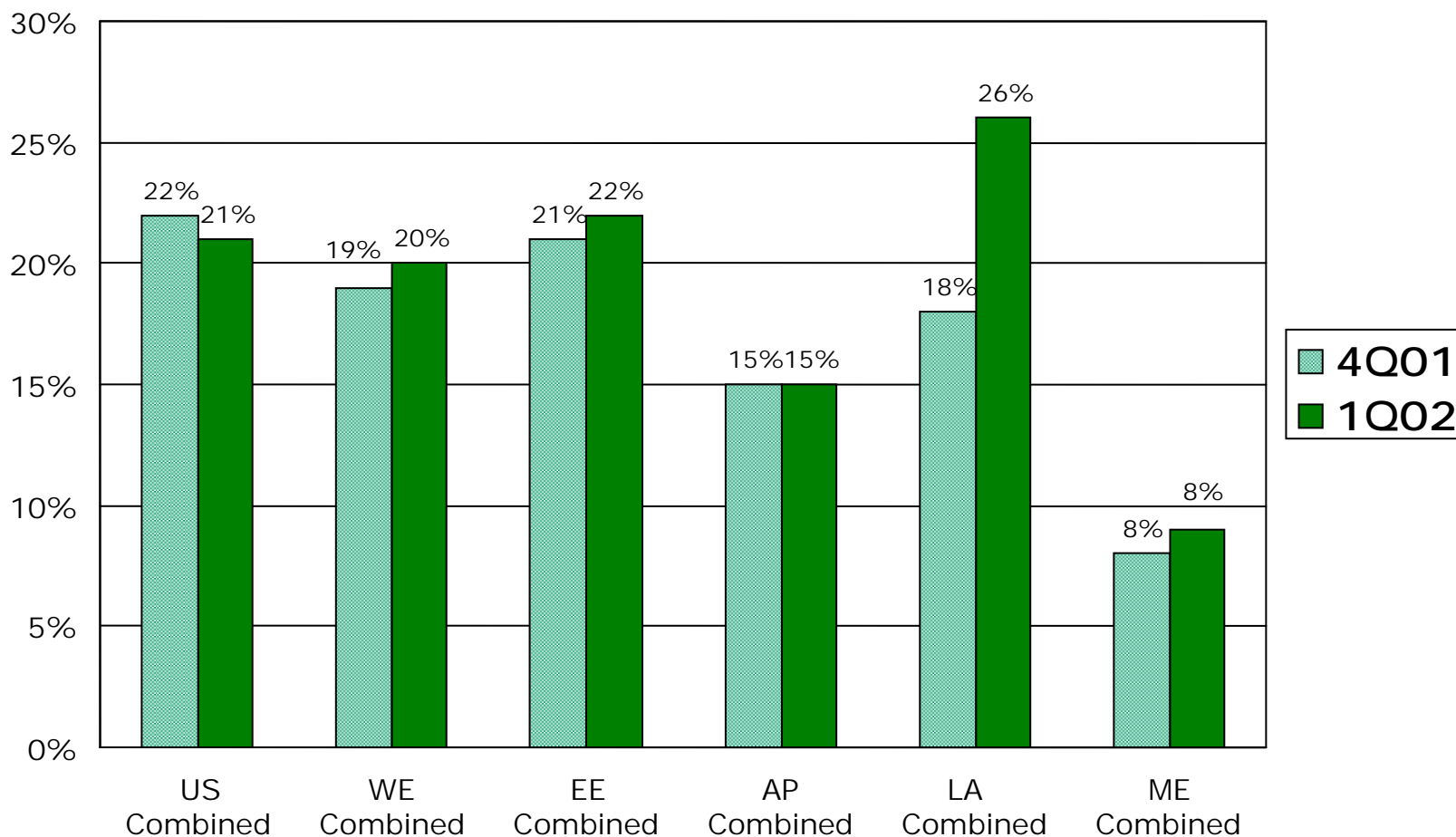
Source: Mercury Research and SIA

Worldwide Market Share in Combined PCs Q401 vs. Q102



AMD Market Share in Windows-based Combined PCs by Geographic Segment

(Source: Dataquest 1Q02)

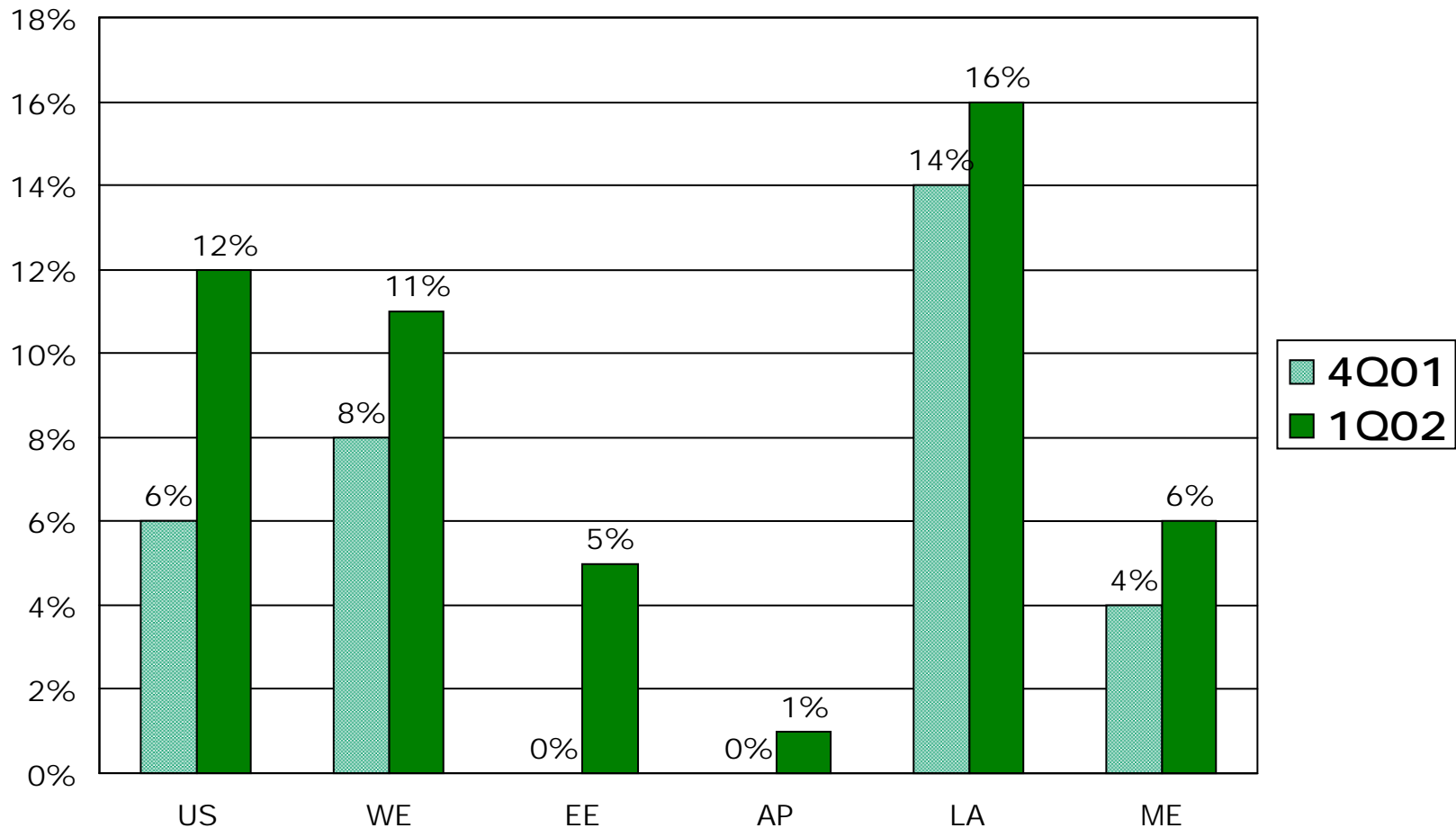


Worldwide Market Share in Mobile PCs Q401 vs. Q102

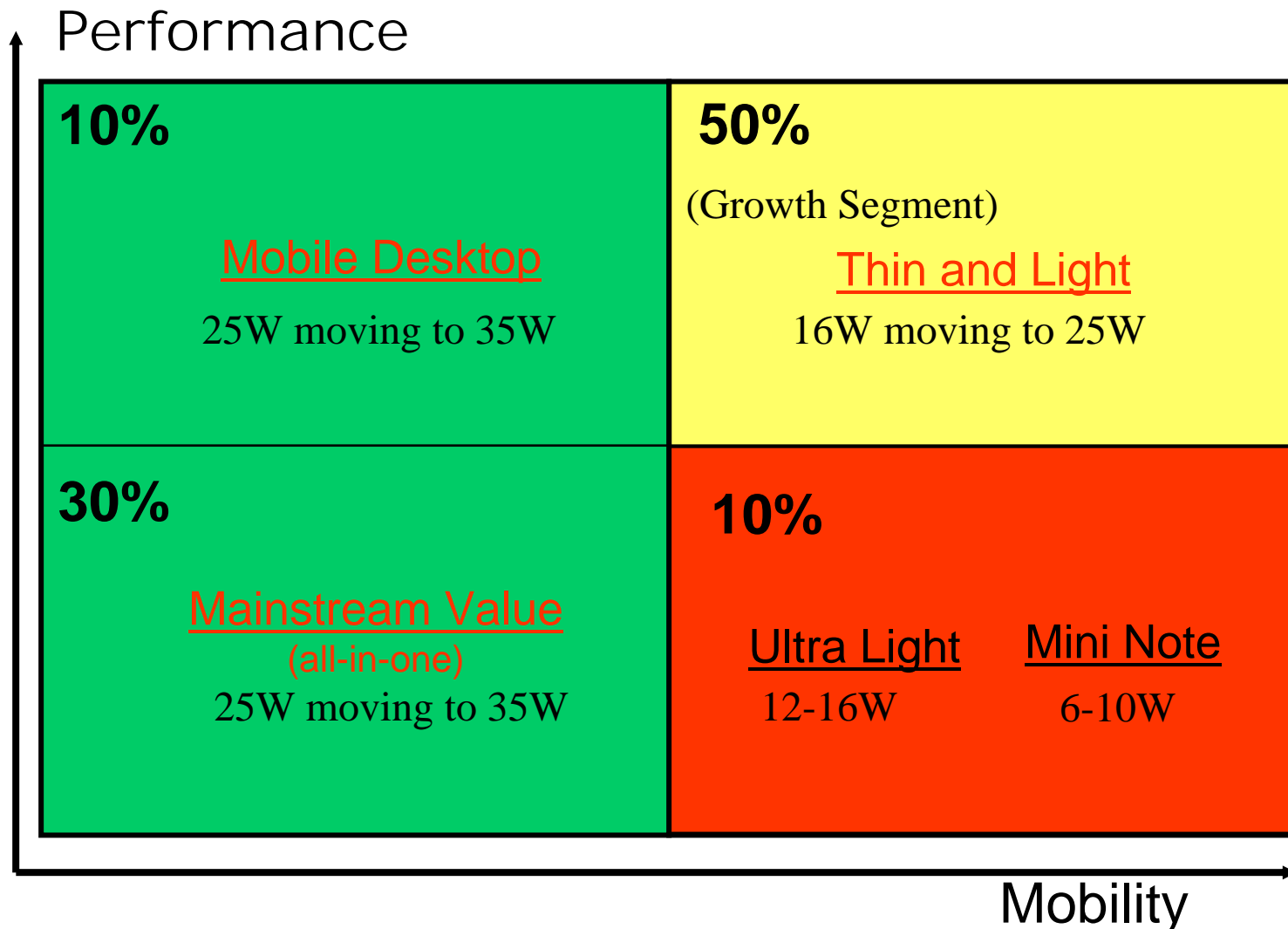


AMD Market Share in Windows-based Mobile PCs by Geographic Segment

(Source: Dataquest 1Q02)



Mobile Product Segments



Mobile

– Full Size

- We're in great shape in traditional full size power envelopes (25W & 35W)

– Thin & Light

- 25W: Great shape through 2003
- 16W: Competitive pressure in early 2003

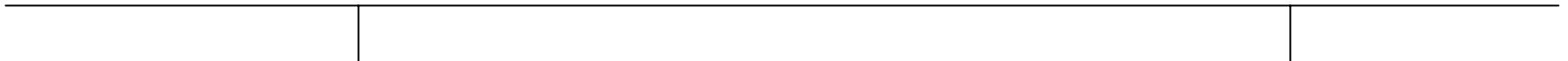
Mobile Roadmap



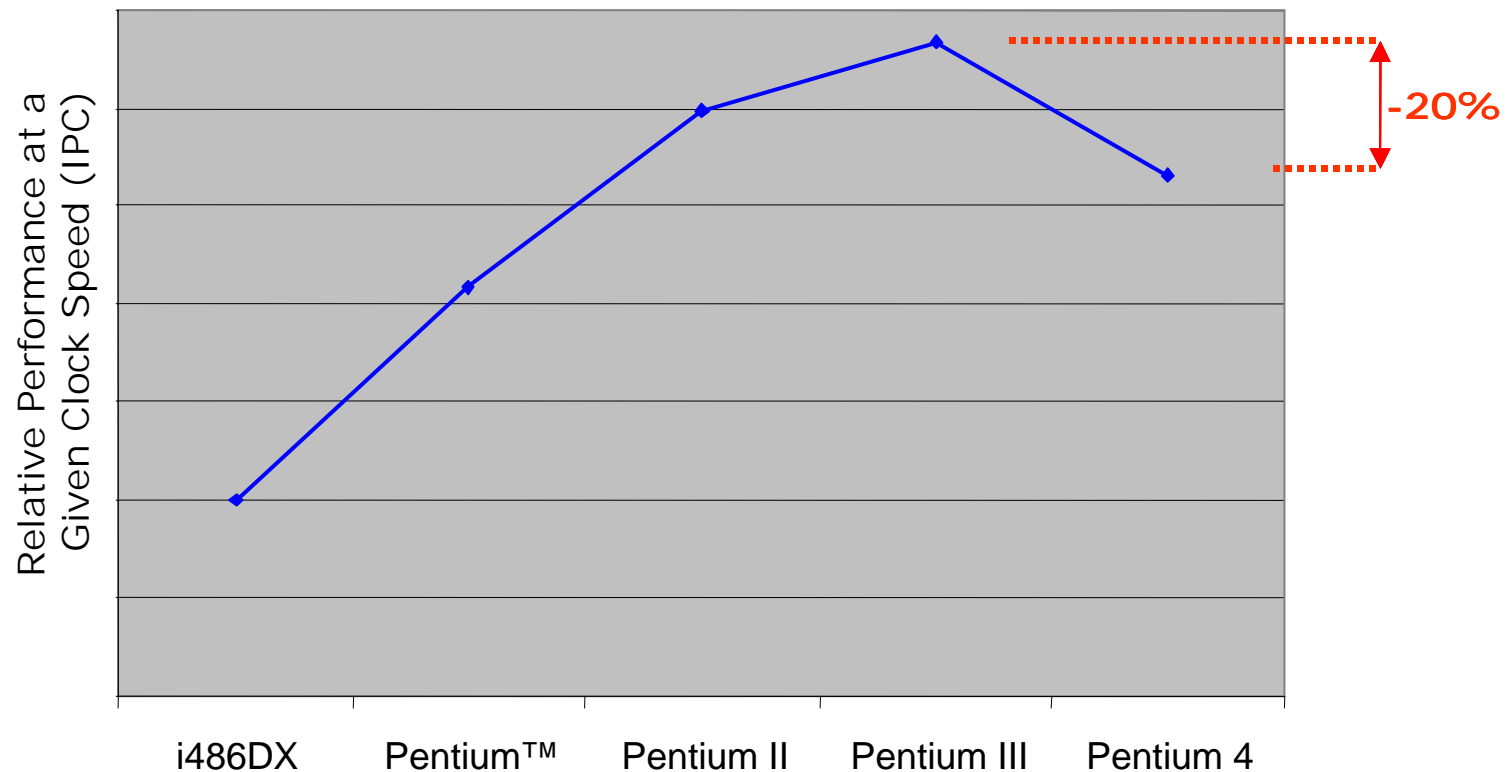
	2001	2002				2003	
	Q4	Q1	Q2	Q3	Q4	1H	2H
35W	1300MHz	M1500	M1900	M2000	M2200	M2400	> M3500
25W	1200MHz	1300MHz	M1600	M1800	M2000	M2200	> M3000
16W			M1400	M1500	M1600	M1800	M2000
180nm Palomino/Morgan							
130nm Thrbred/Appaloosa/Barton							
90nm Hammer							

Relentlessly Find Ways to
Help Customers Work Smarter

It's All About Hammer!



Exposing the "Megahertz Myth"



MHz is distorted and devalued as a measure of system performance.

AMD Athlon™ XP Processor

Performance Made Easy



Office Productivity

Includes Microsoft® Office 2000 (Access, Excel, Frontpage, Powerpoint, Word), Microsoft Project 98, Lotus Notes R5, Netscape Communicator, Norton AntiVirus, WinZip 8.0, and McAfee VirusScan 5.13 among others

**AMD Athlon™ XP
2000+**

**Pentium® 4
2.0GHz**

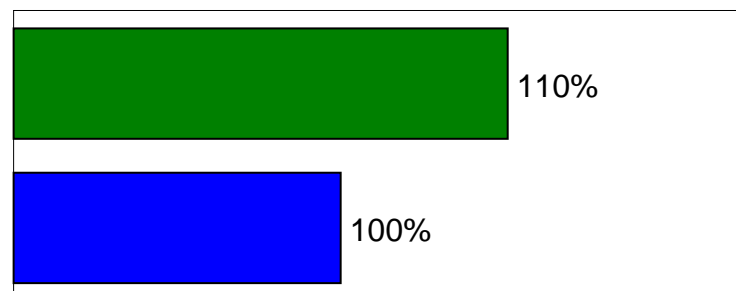


Digital Media

Includes Adobe Photoshop 5.5, Macromedia Dreamweaver 3.0, Netscape Navigator 4.73, Macromedia Flash 5, and Microsoft Windows® Media Encoder 7 among others

**AMD Athlon XP
2000+**

**Pentium 4
2.0GHz**

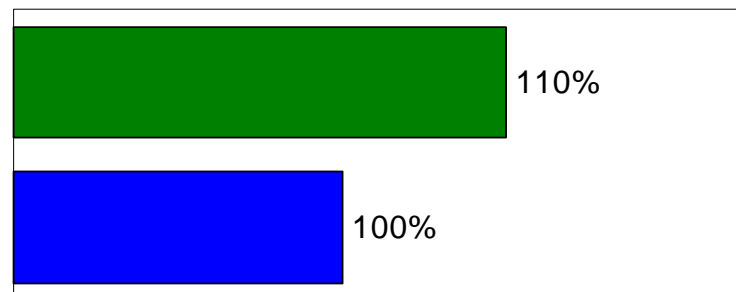


3D Gaming

Includes Half-life Smokin', Expendable, Quake III, AquaMark, DroneZ Generic, Unreal Tournament, Evolva, MDK2, Serious Sam among others

**AMD Athlon XP
2000+**

**Pentium 4
2.0GHz**



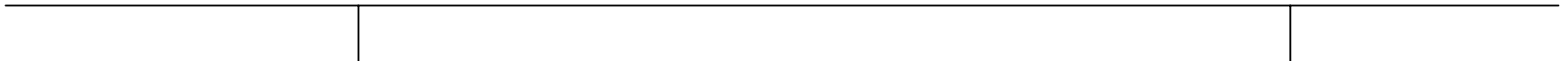
Desktop Roadmap



	2001	2002				2003	
	Q4	Q1	Q2	Q3	Q4	1H	2H
Performance	M2000	M2100	M2200	M2400	M3400 M2800	M4000	M4400
Value	1200MHz	1300MHz	AS MARKET REQUIRES				
180nm Palomino/Morgan							
130nm Thrbred/Appaloosa/Barton							
130nm Hammer							
90nm Hammer							

“The Future is Hammer”

The Realization of the Dream:
Growth through Innovation



AMD U.S. Patents Issued



1998			1999			2000			2001		
Company		No. Patents	Company		No. Patents	Company		No. Patents	Company		No. Patents
1	IBM	2,682	1	IBM	2,789	1	IBM	2,922	1	IBM	3,453
2	Canon	1,934	2	NEC	1,853	2	NEC	2,034	2	NEC	1,966
3	NEC	1,632	3	Canon	1,800	3	Canon	1,897	3	Canon	1,877
4	Motorola	1,428	4	Samsung	1,544	4	Samsung	1,442	4	Micron	1,643
5	Sony	1,321	5	Sony	1,429	5	Lucent	1,415	5	Samsung	1,451
6	Samsung	1,306	6	Fujitsu	1,231	6	Sony	1,394	6	Matsushita	1,447
7	Fujitsu	1,205	7	Toshiba	1,225	7	Micron	1,306	7	Sony	1,392
8	Toshiba	1,194	8	Motorola	1,207	8	Toshiba	1,264	8	Hitachi	1,283
9	Kodak	1,125	9	Lucent	1,156	9	Motorola	1,203	9	Mitsubishi	1,210
10	Mitsubishi	1,120	10	Mitsubishi	1,089	10	Fujitsu	1,169	10	Fujitsu	1,208
11	Hitachi	1,107	11	Matsushita	1,065	11	Matsushita	1,150	11	Toshiba	1,176
12	Matsushita	1,058	12	Hitachi	1,020	12	AMD	1,055	12	Lucent	1,119
13	Lucent	930	13	Kodak	993	13	Hitachi	1,046	13	GE	1,112
14	Philips	845	14	Micron	934	14	Mitsubishi	1,037	14	AMD	1,090
15	HP	866	15	Philips	866	15	Siemens AG	932	15	HP	982
16	Xerox	769	16	HP	855	16	HP	904	16	Philips	882
17	GE	729	17	AMD	825	17	Kodak	876	17	Siemens	817
18	Intel	705	18	Intel	735	18	Philips	839	18	Intel	811
19	Siemens AG	631	19	Siemens AG	731	19	Intel	797	19	TI	806
20	Texas Inst	618	20	GE	700	20	GE	790	20	Motorola	785
21	Sharp	611	21	Xerox	671	21	Texas Inst	692	21	Xerox	722
22	Micron	580	22	Texas Inst	604	22	Sharp	619	22	Kodak	719
	Nikon	580	23	Sharp	566	23	Xerox	577	23	Bosch	705
24	AMD	560	24	Sun Microsys	565	24	Bosch	550	24	UMC	596
25	MN Mining	557	25	Proctor & Gamble	551	25	Fuji Photo	549	25	Honda	587

Source: IFI Claims Patent Service

- First Superscalar RISC – K5
- First to Use “Flip-Chip” Technology – K6
- 3DNow! Technology – K6-2
- First On-Chip L2 Cache – K6-3
- First Use of Copper Interconnects – K7 (Athlon)
- PowerNow! Technology – K7 (Athlon Mobile)
- HyperTransport Technology – K8 (Hammer)
- Silicon-on-Insulator Technology – K8 (Hammer)
- Integrated Memory Controller K8 (Hammer)
- x86-64Bit – K8 (hammer)

Key Microprocessor Families

X86-64
Hammer
Family

8th Generation
Athlon

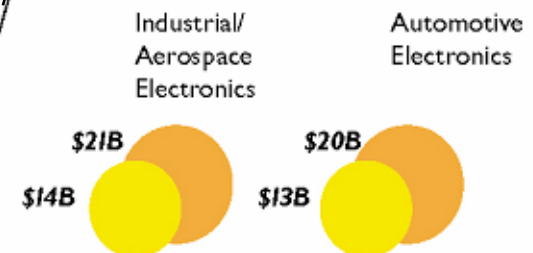
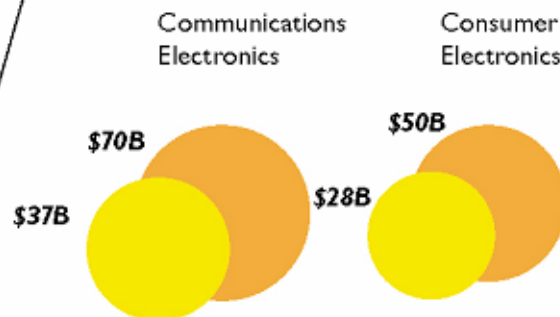
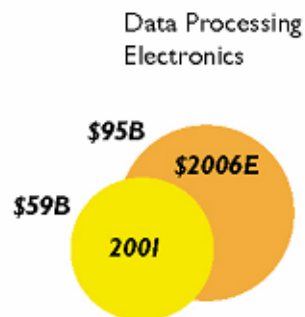
AMD
Opteron

XScale:
Data networking
and handheld
devices

Cell:
Consumer
electronics and
networking

S/390:
Mainframes

**PowerPC and
variants:**
Apple Macs embedded
processors, workstations,
routers, and switches

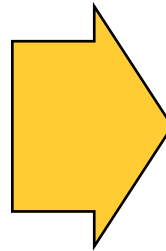


Morphing 'Hammer'



'Hammer' Family

- 'Hammer' is a next generation system architecture which provides a foundation for market specific solutions
 - Desktop/Mobile – 'Clawhammer'
 - Workstation/Server - Sledgehammer'
- Leading-edge 32-bit performance
 - Integrated Memory Controller
- Compelling 64-bit migration strategy
 - x86-64 Instruction Set Architecture
 - Designed for unparalleled 32-bit applications performance
 - Allows for gradual migration to 64-bit applications



Athlon & Opteron Families

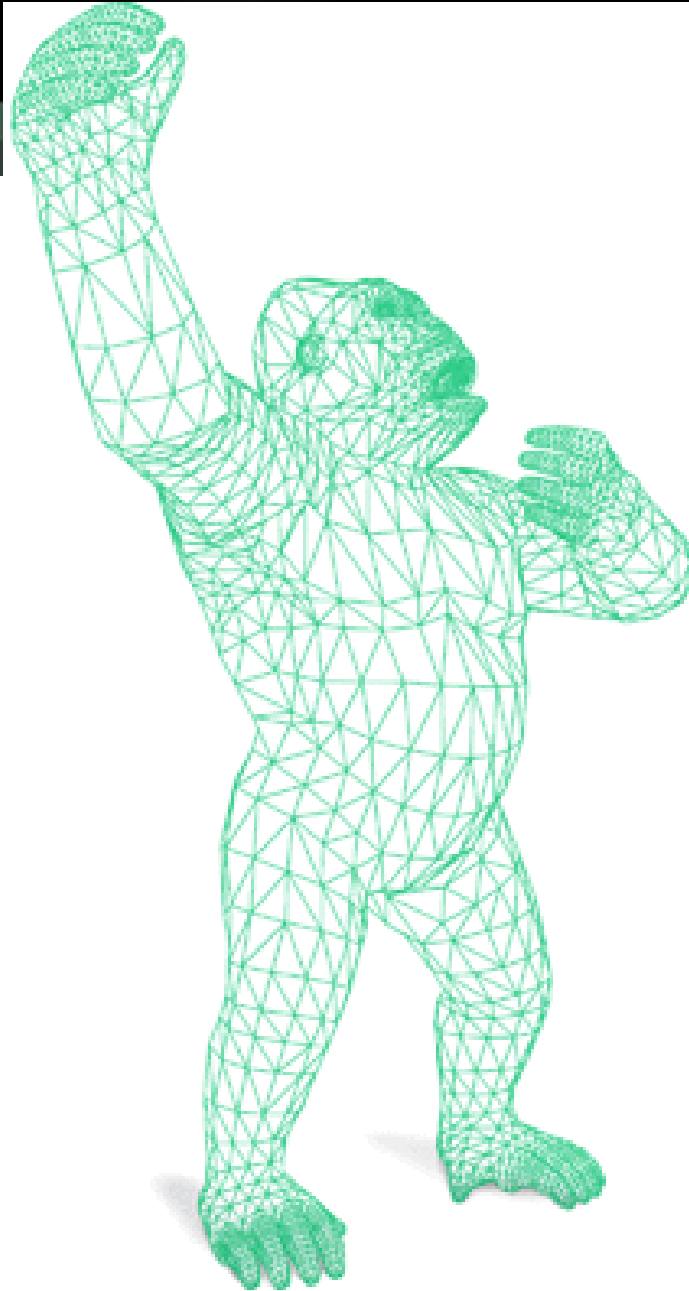
- AMD's 8th generation system architecture provides a foundation for market specific solutions
 - Desktop/Mobile – Athlon
 - Workstation/Server - Opteron
- AMD Athlon
 - Leading-edge 32-bit performance
 - Allows for gradual migration to 64-bit applications as needed
- AMD Opteron
 - Leading-edge 32 & 64-bit performance
 - Unparalleled 32-bit performance
 - Improved performance on 64-bit applications
 - No performance penalty on 32-bit apps in a 64-bit environment
 - Compelling 64-bit migration strategy
 - Provides a seamless migration path that preserves investments in existing 32-bit software



- One Hundred Million Transistors
- Nine Layers of Copper
- Silicon-on-Insulator
- Three HyperTransport Interconnects
- Integrated Memory Controller
- x86-64 Technology



The Virtual Gorilla



Hammer Status



"We also have developmental 64-bit versions of Windows XP and Windows.NET server running on the very same hardware system.

I'm really excited about this chip."

Dave Cutler
Sr. Distinguished Engineer
Microsoft Windows Team



7th Generation to 8th Generation Transition Summary



The “Immutable Laws” of the PC industry for transition to occur

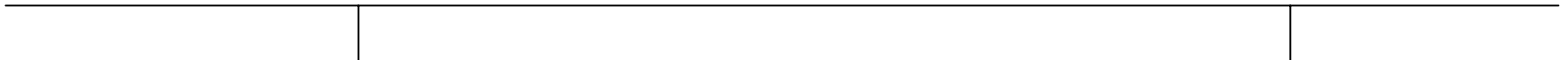
- New product must cost less while providing equal functionality/performance to previous generation, or,
- New product must provide greater functionality/performance at a cost comparable to previous generation, and,
- New product MUST maintain legacy compatibility

Only Hammer provides all the above:

- For all customer segments (commercial and consumer)
 - For all product segments
(desktop, mobile, server and workstation)
 - Common architecture in both hardware and software
 - Next generation 32-bit performance
 - Evolutionary 64-bit capability
-

Hammer family values

- Sustain and increase desktop performance lead
 - Architectural performance innovations
 - Pipeline supports aggressive clock speed scaling
- Continue mobile segment penetration
 - Improved energy efficiency through design and technology innovations
- Introduce seamless 64-bit computing: AMD x86-64



- Sledgehammer Silicon Development
 - Tape out Nov-01
 - First silicon Jan-02
 - Sampling now
 - Schedule supports Dec-02 production shipments
- Chipset Silicon Development
 - Three AMD-developed components
- HW Platform Development: No Issues
- Third Party Chipsets
 - SiS, VIA, Nvidia have fully staffed programs today
 - All three support production requirements
- 64bit Software
 - Linux: OK
 - Microsoft: Supported – schedule to be announced

Why Does 64-Bit Matter?



64 Bit means higher performance for certain classes of applications ...

- CPU allows 64 bits of data to be processed in a single clock cycle, providing greater performance at a given frequency
- For **Workstations** this means:
 - Faster and more detailed mechanical design & analysis (Engineering/CAD) – AutoDesk, Dassault Catia, Fluent, PTC
 - Improved digital content creation (rendering) driving toward real-time “reality” imaging - Avid, Softimage, Alias Wavefront
 - Computation Intensive applications – VoxelGeo
 - Financial analysis – trading floor environments, simulation modeling
- For **Servers**, 64 bits provides superior performance in:
 - Large databases – Oracle, DB2, Microsoft SQL
 - Large websites (caching, SSL) - Google
 - Enterprise Resource Planning (ERP) - SAP
 - Security / Encryption – triple, DES (Digital Encryption Standard) encryption
 - Terminal Server/Thin Client – Citrix and Microsoft Terminal Server
 - Customer Relationship Management (CRM) - Siebel
 - Scientific (High Performance Computing) – genetic modeling, geophysical data processing, climate modeling, environmental issues related to fluid flows, etc.

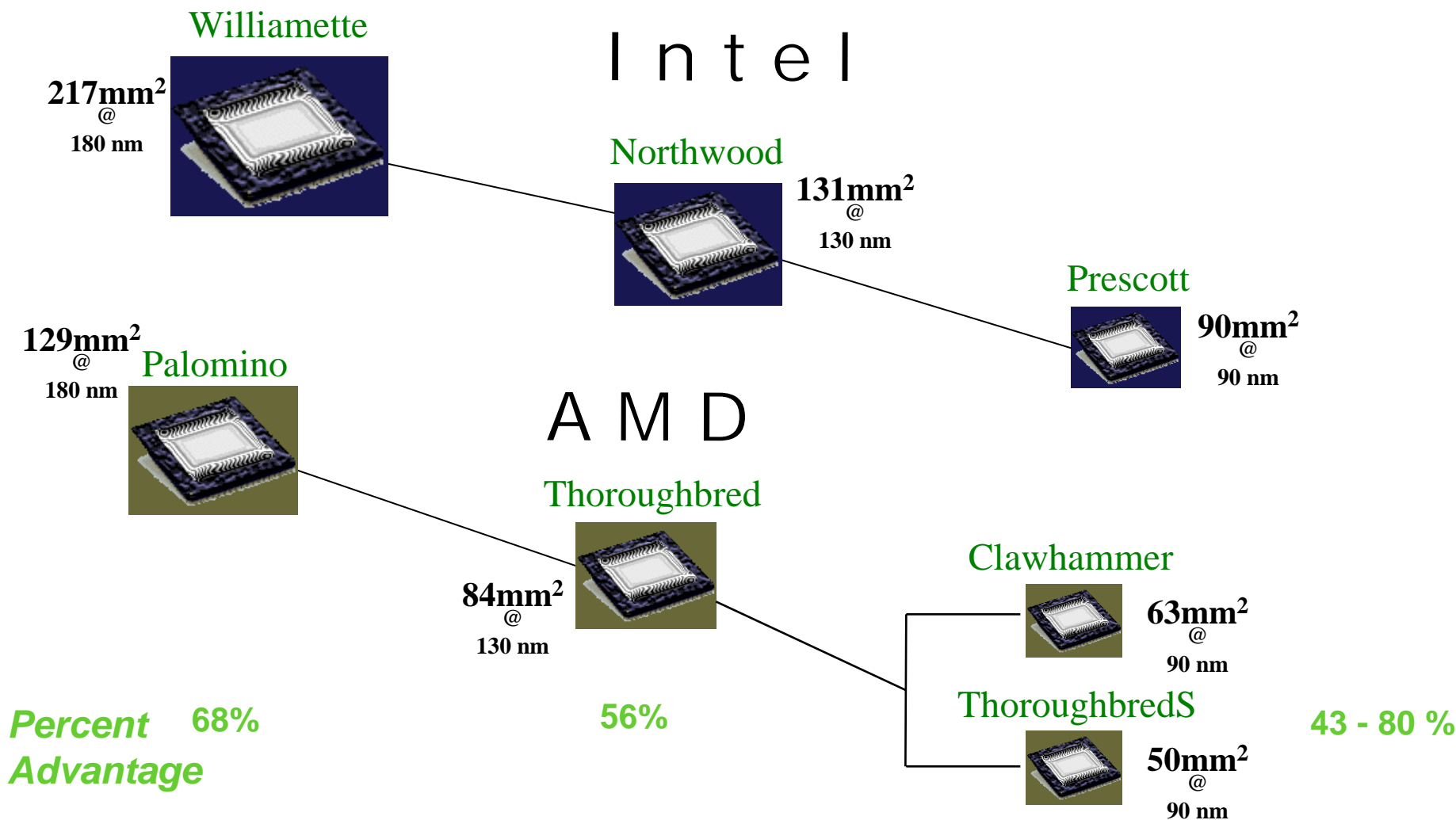
- **Increased Scalability**

- File size limits in a 32-bit environment may require enterprise databases to use multiple files to hold the content of a single larger file thereby limiting system performance
- 64-bit computing benefits these applications by allowing larger single files, and greater number of simultaneous users

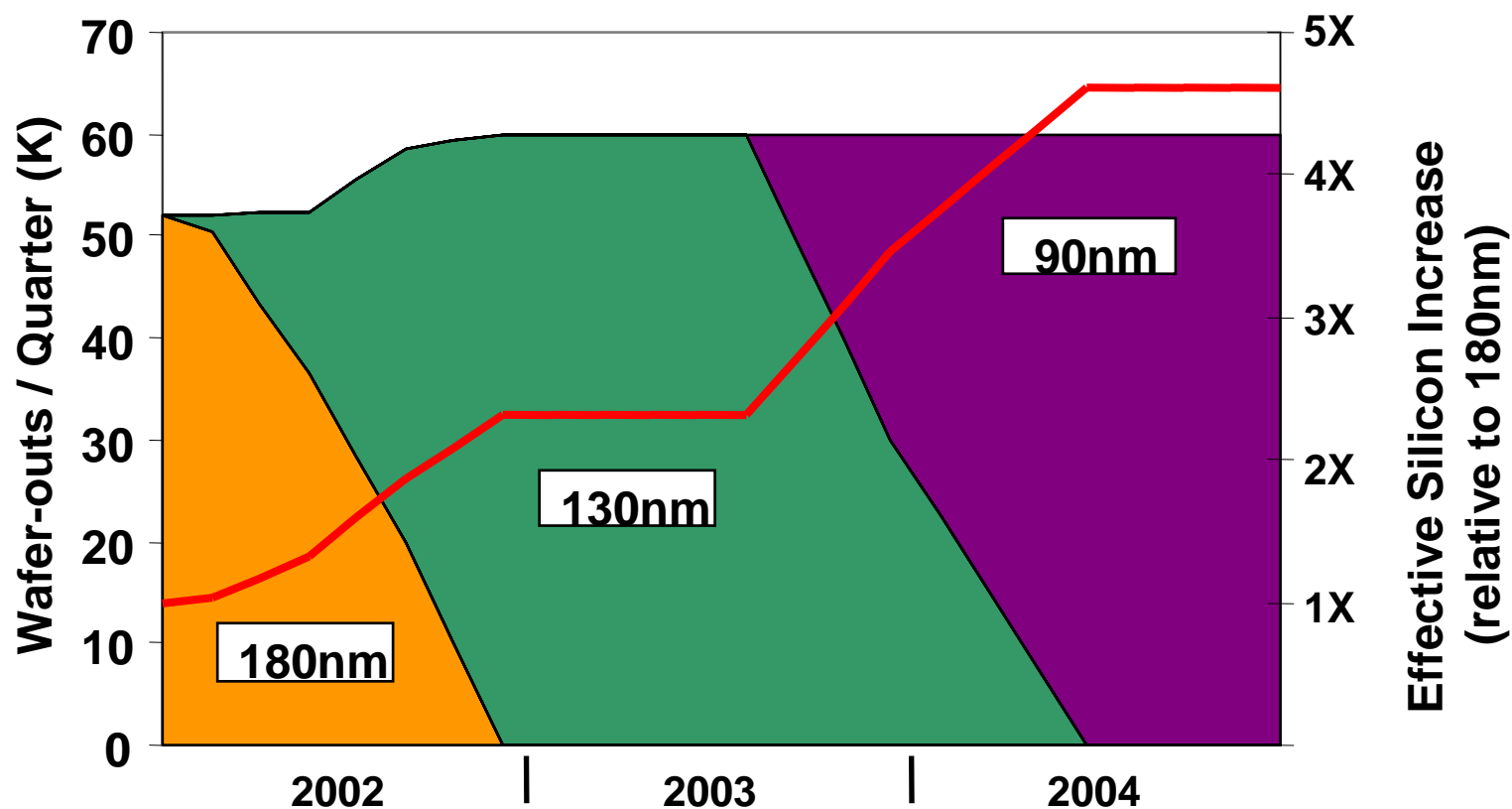
- **Increased Performance**

- Applications requiring large files, large blocks of memory, high precision arithmetic, and/or complex algorithms will benefit from 64-bit computing
 - Applications, such as large databases, needing more code or data in memory will benefit from decreased swapping with 64-bit computing
 - Provides increased addressable memory improving performance and scalability (greater than 4GB)
-

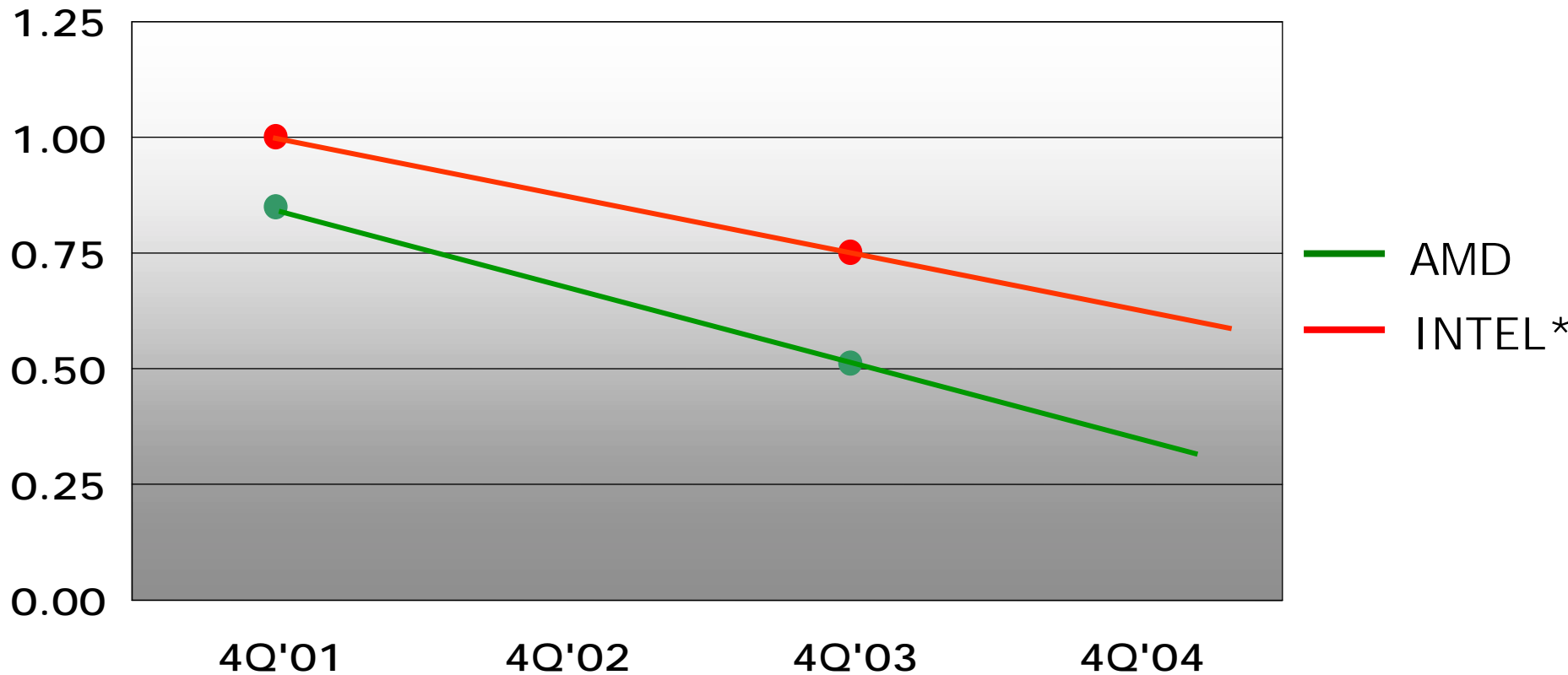
The Incredible Shrinking Die



Fab 30 Technology Migration



Technology/Manufacturing Effectiveness



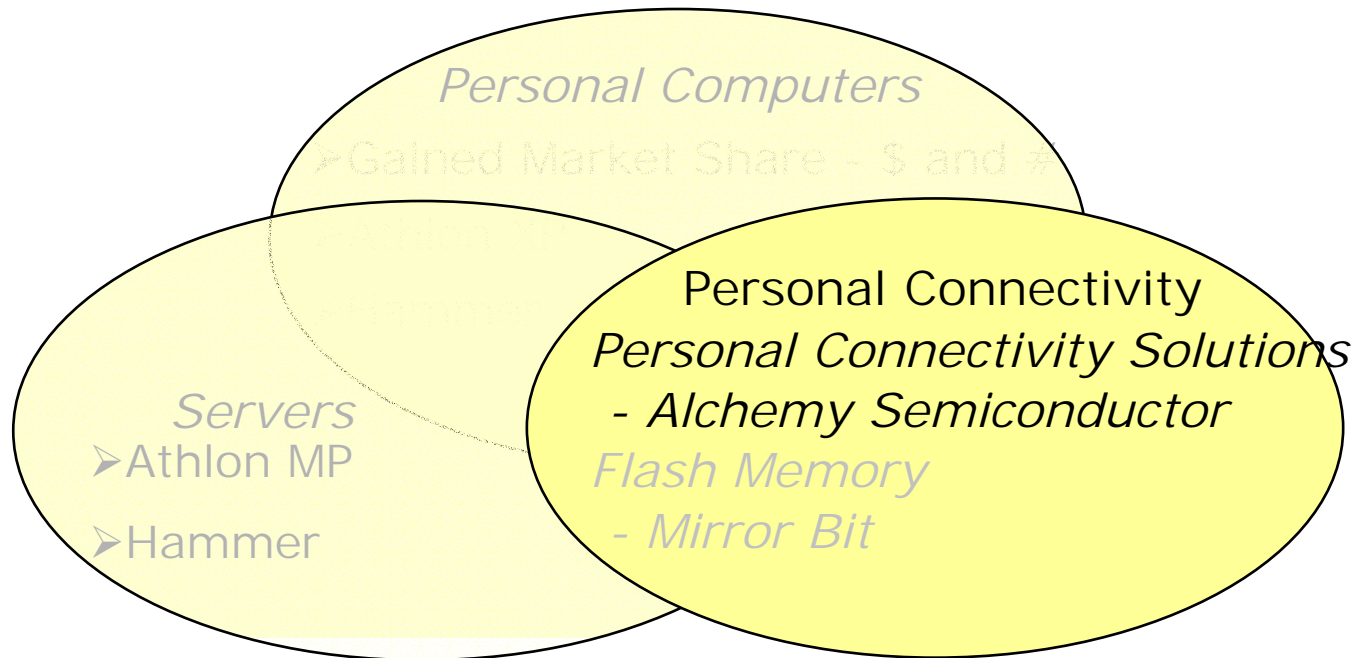
*Source: Intel Executive Webcast 10/30/01

We are a Growth Company

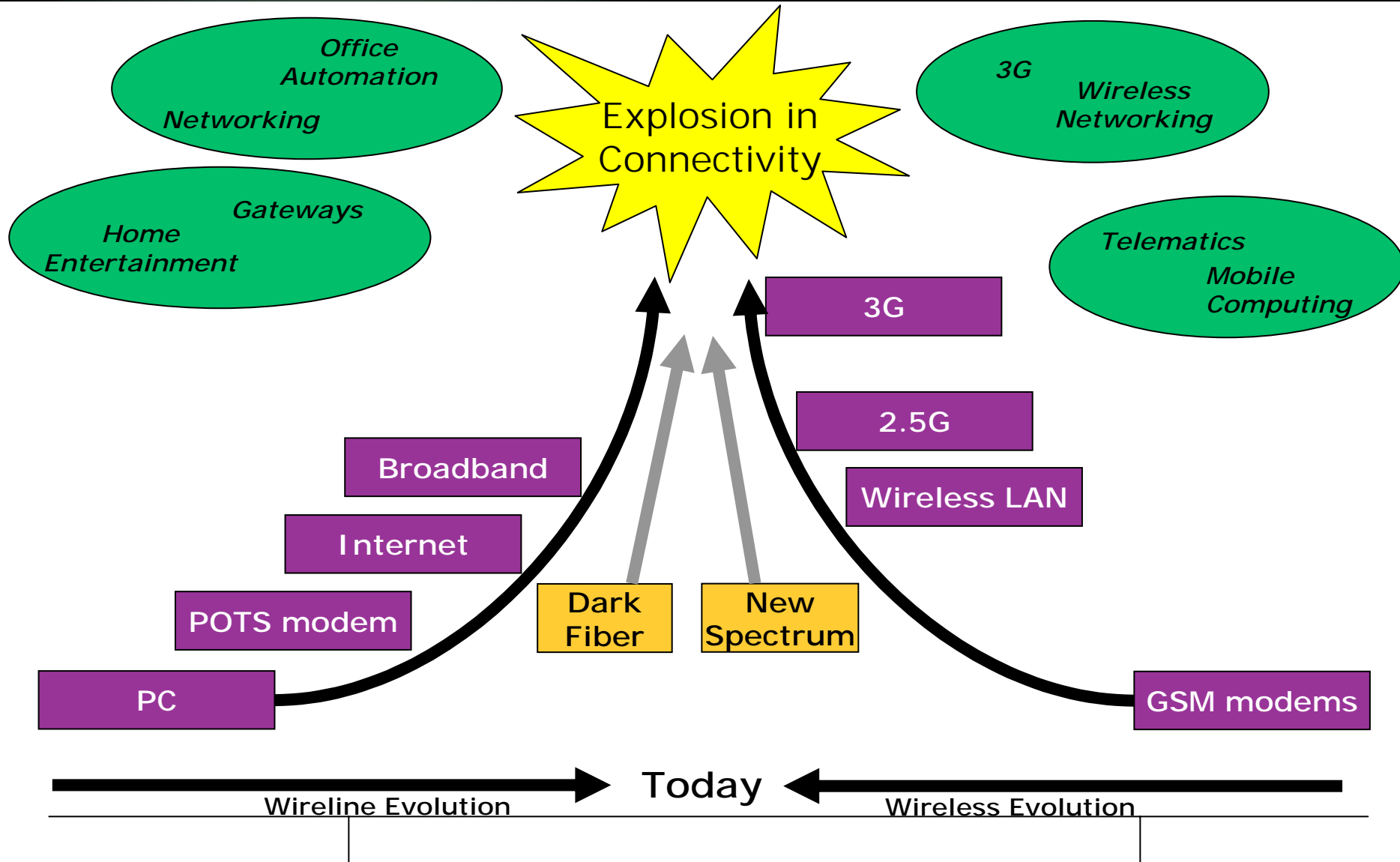


Three Track Strategy

- ✓ Focused on the largest and fastest growing Semiconductor Markets
- ✓ Profitable growth from valuable solutions to our customers
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Why Are PCS Opportunities Emerging?



Alchemy's founders have architected some of the most innovative and commercially successful processors in the industry

- Alpha
- StrongARM

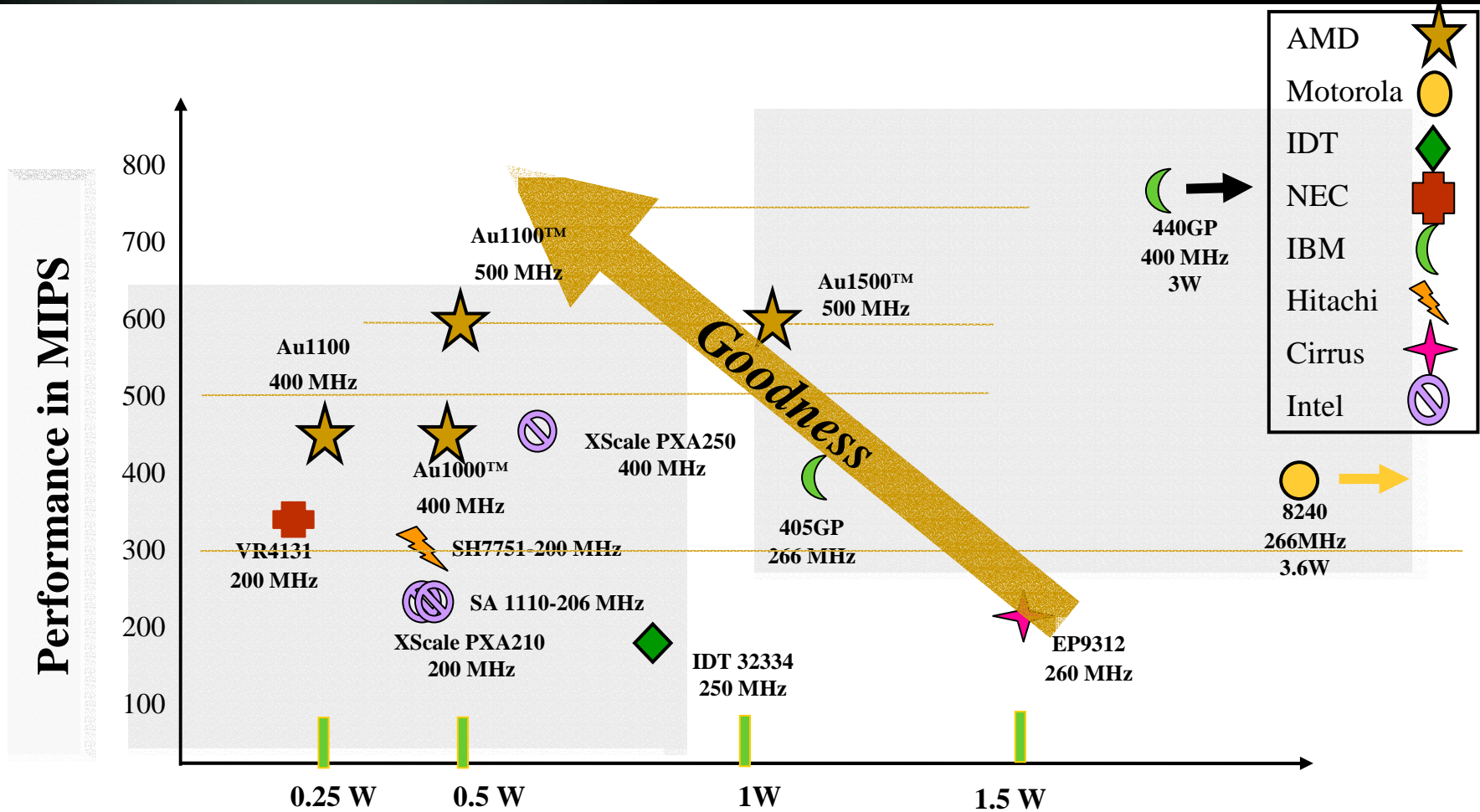
Alchemy's products, technology and customer base complements AMD's existing position

- High-performance, low-power, MIPS-based connectivity solutions
- Complimentary customer base

Alchemy already showing potential in the global market

- 25+ designs wins worldwide
-

Competitive Landscape



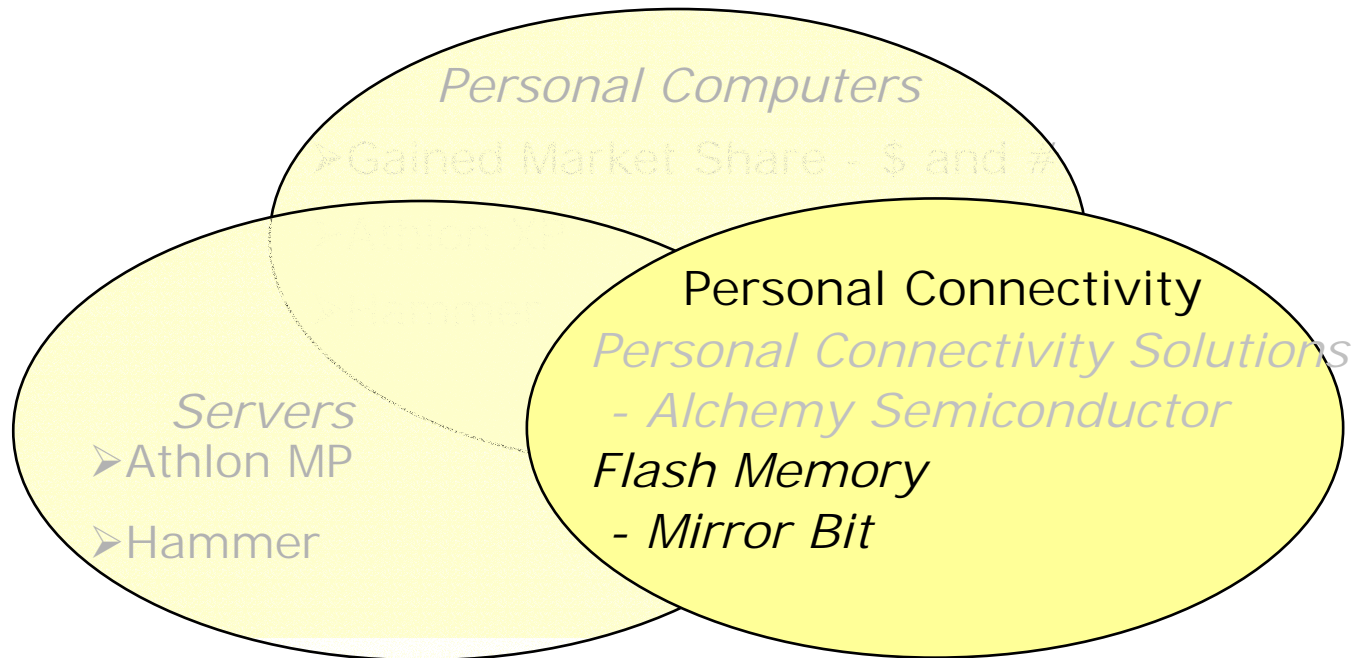
Source: Microprocessor Reports / Data Sheets

We are a Growth Company

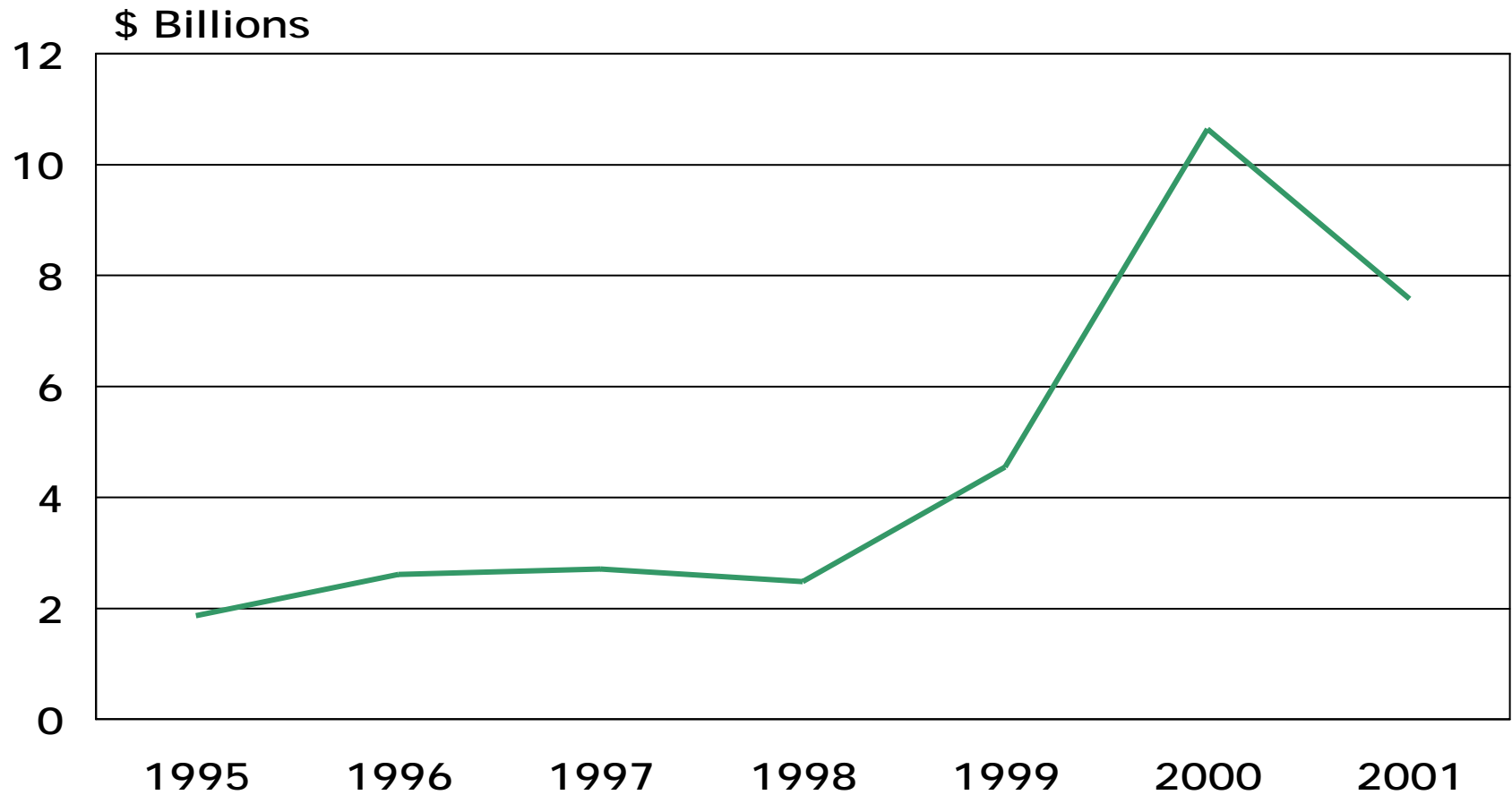


Three Track Strategy

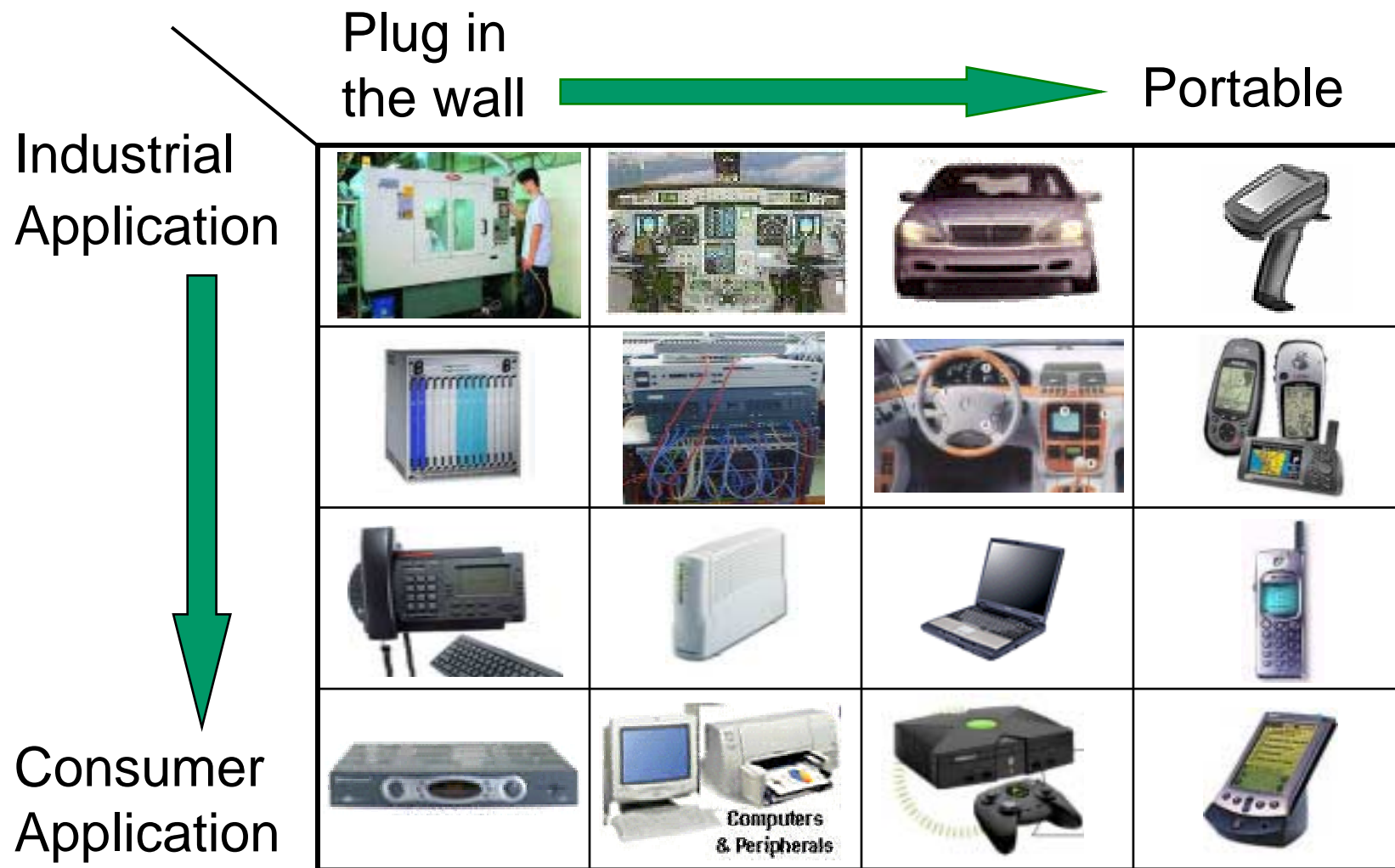
- ✓ Focused on the largest and fastest growing Semiconductor Markets
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Industry Flash Sales

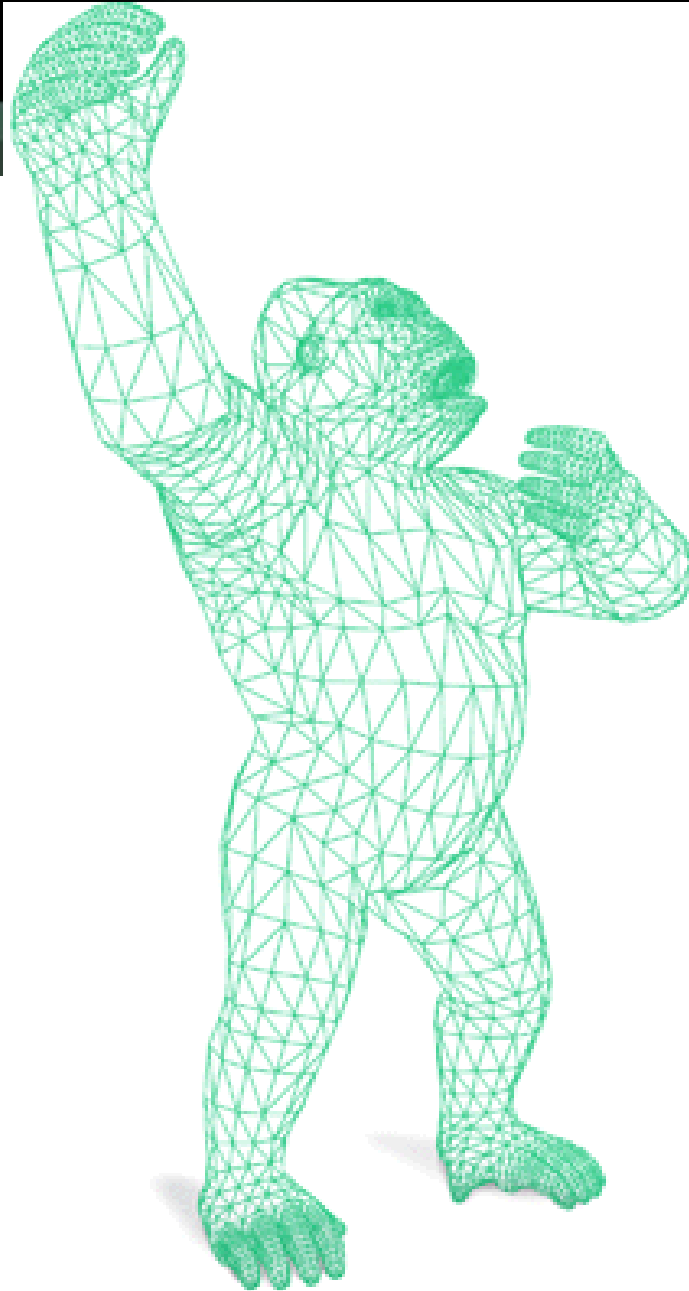


Flash is ubiquitous

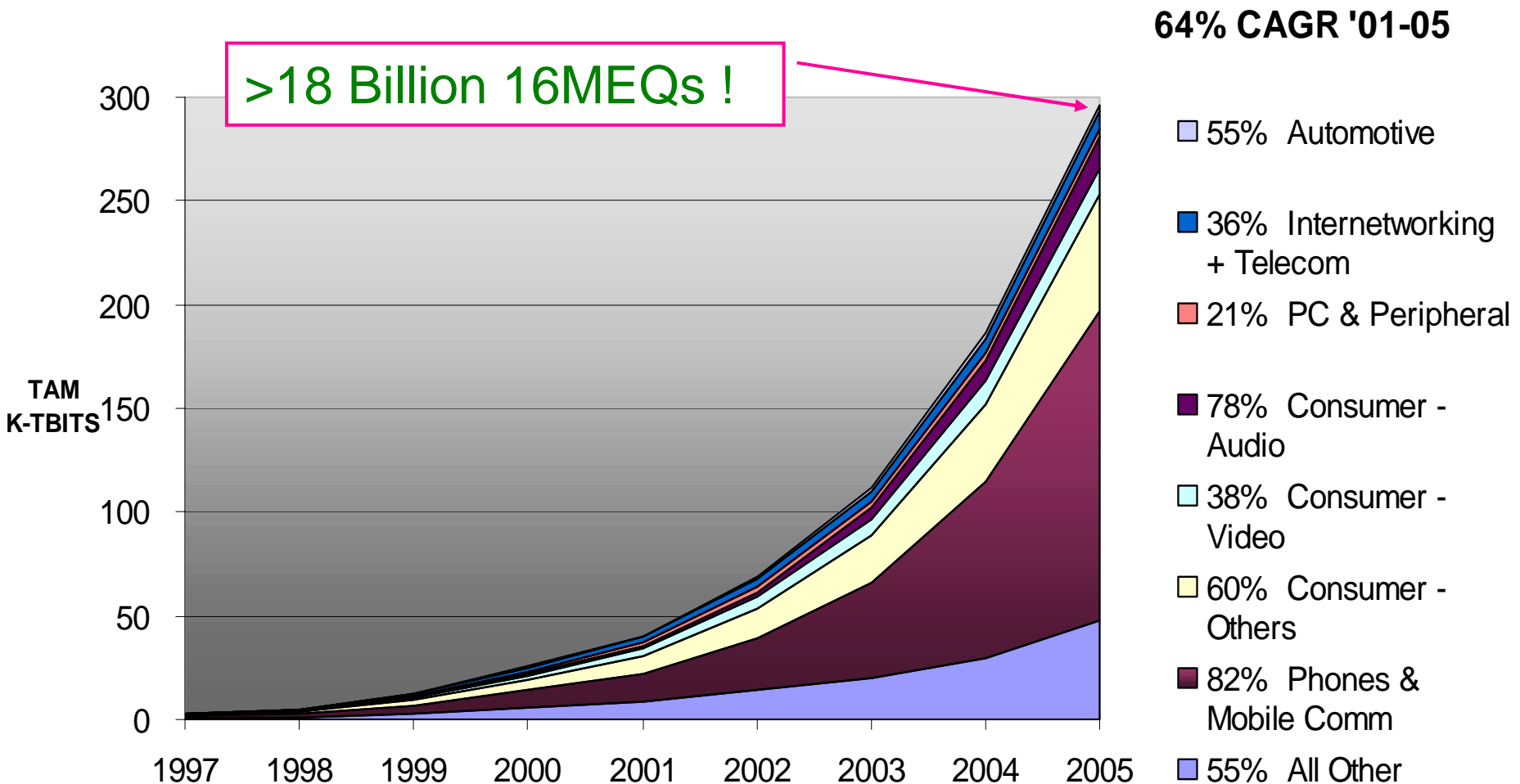




The Virtual Gorilla



Flash Market - The Opportunity



Source: FASL TAM 09/01

Market Segments

- Very strong relationship with Samsung (cell phones)
- Heavily engaged with Nokia (shipping into GPRS phones)
- Networking demand remains weak but signs of improvement
- Excellent position in Automotive
- MG unit demand troughed in Q4'01 (Q1 unit ships up 14% to 48M)
- Continued ASP pressure in all market segments

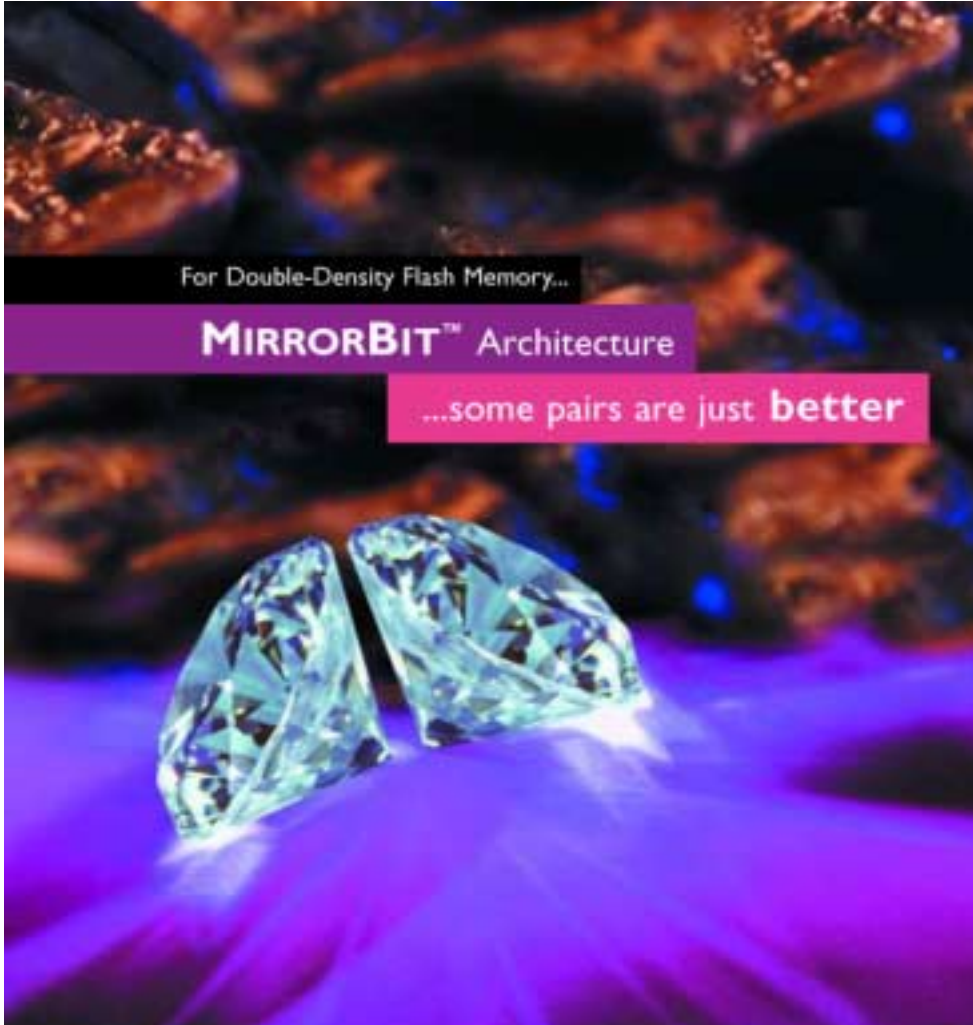
Products

- Intel's StrataFlash has been successful (high density, low cost)
- First MirrorBit product samples Q2'02, revenue shipments Q3'02

Manufacturing/Technology

- Fab 25 transition plan to Flash on schedule
- Closing gap with Intel

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For Double-Density Flash Memory...

MIRRORBIT™ Architecture

...some pairs are just **better**

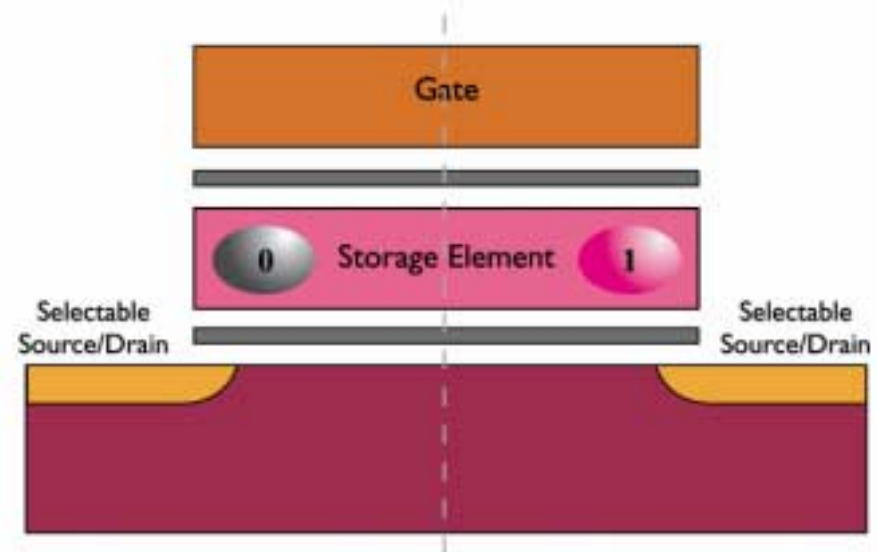
MirrorBit a Major Landmark in Flash Memory



The MirrorBit cell is the first two-bit-per cell memory solution to guarantee data retention

Uncompromising performance, endurance, and reliability

- Pin compatible
- Software compatible
- No compromise on endurance
- No compromise on reliability
- 16MB to 1GB



- Two independent bits per cell
- High-density Flash to 1 Gb
- Lowest cost-structure Flash
- Each bit is fully charged
- Guaranteed data retention

MirrorBit – Cost Advantage



	MirrorBit	MLC	MirrorBit
Feature (mm)	0.18	0.13	0.13
Introduction date	2H,02	1H,03	1H,03
Cell size	4 F ²	6 F ²	4 F ²
Cell size	128%	100%	67%
Process cost	0.8	1	0.8
Die cost*	100%	100%	65%

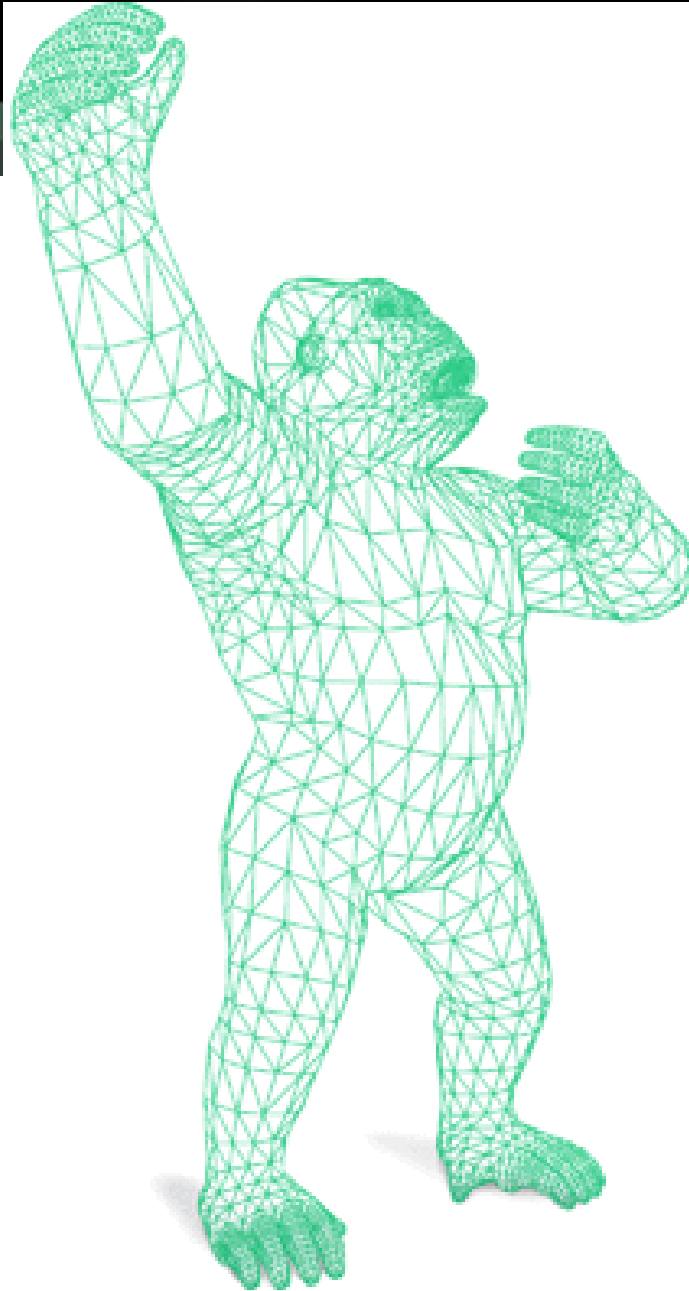
MirrorBit provides a cost structure
one generation ahead of the
competition

At the same lithography,
MirrorBit has a lower cost
than MLC

*Assuming an array efficiency of 50%



The Virtual Gorilla



AMD 

UMC

Expanded foundry agreement to acquire capacity for 130nm and 90nm production to supplement F30

- Transistor support to achieve performance
 - Require Athlon (Thoroughbred) capacity in 2003
- Joint development agreement
 - Divide the task of developing 65nm 300mm technology
 - AMD with UMC/Taiwan, then Singapore
- Strategic Capacity agreement
 - 50/50 joint venture in Singapore 300mm UMCi fab

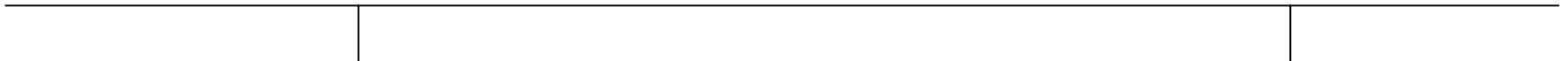
- Virtual Gorilla
 - Lower R&D spending model
 - Much, much lower capital spending model
 - Enhanced customer choice
 - Harness industry wide innovations in support of AMD technology
- Flash Memory
 - Fab 25
 - Exclusively flash by year end
 - MirrorBit – “No Compromise” technology
 - Lowest cost producer

- Microprocessors
 - Technology leader
 - Copper
 - SOI
 - Rapid migration
 - Die size, die size, die size
 - Lowest cost producer

Hammer changes the game!
Seamless migration to 64-Bit computing

Opteron is simply the best!

- Superior growth through expanded market opportunity
 - Mobile PCs
 - Servers and workstations
 - Internal access devices (IAD)
 - Next generation cell phones



AMD

